## **CONCEPT:** SIGNIFICANT FIGURES (SIMPLIFIED)

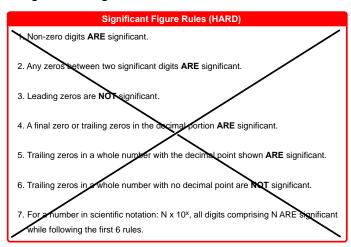
## **Exact vs Inexact Numbers**

- The numbers you will encounter can be either exact or inexact.
  - □ **Exact Number**: A value or integer obtained from \_\_\_\_\_\_ objects or is a part of a definition.
    - There are 125 students in your lecture or there are \_\_\_\_\_ objects in a baker's dozen.
  - □ **Inexact Number**: A value obtained from \_\_\_\_\_\_ or measurements that contains some uncertainty.
    - Your textbook is measured at a length of 12.53 inches.

**EXAMPLE:** Determine if the following statement deals with an exact or inexact number: The combined mass of all doses of a bronchodilator administered to a patient measure 10.0 mg.

## **Rules for Significant Figures**

• Significant Figures: the numbers that contribute to the \_\_\_\_\_ associated with any value.



Significant Figure Rules (EASY)	
1. If your number has a decimal point move from to	
☐ Start counting once you get to your first non-zero number and keep counting until the end.	
0.000250 8.	.03 x 10 <sup>-5</sup>
If your number has NO decimal point move from to  □ Start counting once you get to your first non-zero number and keep counting.	
until the end.	
7055	
Exact Number: A value or integer that is known with complete certainty.      For an exact number, there are an number of significant figures.	
125 students	12 eggs

**EXAMPLE:** Determine the number of significant figures in the following value: 0.003840

PRACTICE: How many sig figs does each number contain?

a) 100. min

b)  $17.3 \times 10^3 \,\text{mL}$ 

c) 10 apples

**PRACTICE:** Indicate the number of significant figures in the following:

A liter is equivalent to 1.059 qt.